CLAIMS

1. A method for the *in vitro* identification of tumor cells in a tumor sample to be tested, characterized in that it consists in measuring the level of expression of all or part of the gene encoding semaphorin-3A in normal epithelial cells from said sample and in epithelial cells, from this same sample, suspected of being tumor cells, and in declaring these suspected cells to be effectively tumor cells if an underexpression of said gene is observed therein compared to the expression observed in the normal cells.

2. The method as claimed in clam 1 applied to the evaluation of the aggressiveness of tumor cells, characterized in that it comprises the following steps:

   i) quantifying, in vitro, the product of expression of all or part of the gene encoding semaphorin-3A within, firstly, said tumor cells and, secondly, said normal cells,

   ii) comparing the results obtained in step i), and

   iii) declaring the tumor as having strong invasive power if an underexpression by a factor of at least 3 is observed.

3. The method as claimed in claim 2, characterized in that said tumor is declared as having strong invasive power if an underexpression by a factor of at least 10 is observed.

4. The method as claimed in one of claims 1 to 3, characterized in that said tumor cells consist of prostate cells.

5. A method for the in vitro evaluation of the effectiveness of an antitumor treatment, characterized in that it consists in measuring, on a sample of epithelial tumor cells, the level of expression of all or part of the gene encoding semaphorin-3A at predetermined time periods, and in declaring said treatment to be effective if, in the course of the various predetermined time periods, an increase in the expression of all or part of the gene encoding semaphorin-3A is observed.

6. The method as claimed in any one of claims 2 to 5, characterized in that said expression product consists of RNAs and/or cDNAs.

7. A kit for carrying out the method as claimed in claim 6, characterized in that it comprises:

a) the primers which hybridize specifically with the RNAs and/or cDNAs derived from all or part of the gene encoding semaphorin-3A, and

b) the buffers and enzymes required for the amplification, labeling and hybridization reactions.

8. The method as claimed in any one of claims 2 to 5, characterized in that said expression product consists of proteins.

9. A kit for carrying out the method as claimed in claim 8, characterized in that it comprises:

a) the antibodies which complex specifically with the proteins derived from all or part of the gene encoding semaphorin-3A,

b) the buffers required for the reactions for revealing the formation of the complexes and/or for quantifying these complexes.

10. The use of a polypeptide comprising all or part of semaphorin-3A, for producing a pharmaceutical composition intended to inhibit the invasive power of epithelial tumor cells.

11. The use of a nucleic acid comprising all or part of the gene encoding semaphorin-3A, for producing a pharmaceutical composition intended to inhibit the invasive power of epithelial tumor cells.

12. A method for identifying any substance similar to semaphorin-3A, characterized in that it consists in performing, on epithelial tumor cells, an invasion assay in the absence of $VEGF_{165}$, or in the presence of $VEGF_{165}$ but with the concomitant presence of a substance which blocks the action of said $VEGF_{165}$, and in selecting as analogues the substances which inhibit said invasion.

13. The use of any substance similar to semaphorin-3A, for producing a pharmaceutical composition intended to inhibit the invasive power of epithelial tumor cells.

14. A pharmaceutical composition for inhibiting the invasiveness of epithelial tumor cells, characterized in that it comprises all or part of semaphorin-3A or of the gene encoding said semaphorin-3A.

15. A pharmaceutical composition for inhibiting the invasiveness of epithelial tumor cells, characterized in that it comprises at least one substance similar to semaphorin-3A.